



**UNITED STATES DEPARTMENT OF COMMERCE**  
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32M1/1230

EXAMINER

GOODMAN, C

ART UNIT

PAPER NUMBER

3204

DATE MAILED: 12/30/96

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

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## DETAILED ACTION

1. The Preliminary Amendment filed on June 25, 1996 has been entered.

### *Priority*

2. Applicant is advised of possible benefits under 35 U.S.C. § 119(a)-(d), wherein an application for patent filed in the United States may be entitled to the benefit of the filing date of a prior application filed in a foreign country.

3. Applicant is reminded that in order for a patent issuing on the instant application to obtain the benefit of priority based on priority papers filed in parent application Serial No. 08/182,074 under 35 U.S.C. § 119(a)-(d), a claim for such priority must be made in this application. In making such claim, applicant may simply identify the application containing the priority papers. In addition, it is noted that the Declaration lists the foreign applications, yet priority has not been claimed.

### *Specification*

4. The disclosure is objected to because of the following informalities:
  - i) Pg. 1, lines 15-21, it is noted that French Patents 612,303 (Marinori) and 2,340,170 (Metal Box Ltd.) are discussed in reference to the instant application, yet no copies of the documents have been submitted. It is respectfully requested that copies of these documents be submitted for consideration by the examiner.

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- ii) Pg. 4, lines 4-12, the phrase "possibility of exchanging...Each circular cutter unit...minimized. -- constant, burr-free..." is grammatically awkward and awkward in form. It is suggested that the advantages in pgs. 3-4 be listed in better form without a mix of incomplete sentences and explanatory sentences. In line 4, the term "possibility" should read -- and the possibility --.
- iii) Pg. 5, line 19, the phrase "setting the" should read -- setting of the --. In line 24, the phrase "...subtending an acute angle of about 10°" is not clearly understood. Where is this angle in the drawings?

Appropriate correction is required.

### *Drawings*

- 5. The drawings are objected to because references "26" and "27" should be interchanged to maintain consistency with the depiction in Fig. 1. Correction is required.
- 6. The drawings are objected to under 37 C.F.R. § 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "means for releasably coupling" (claim 1, first occurrence) must be shown or the feature cancelled from the claim. No new matter should be entered.

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*Claim Rejections - 35 USC § 112*

7. Claims 1-21 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Pg. 6, lines 24-33, the phrase "Preferably, the drive unit is a non-positive drive...to be facilitated" is not clearly understood. What is encompassed by the phrase "non-positive drive"? What is it referring to? It is not clear how the drive unit 30 is non-positive when it appears that the drive unit positively engages the drive gears of each respective cutter units via drive shaft 16 to positively drive each pair of cutting blades. In addition, how is the drive unit "detachable"? What structural features facilitates detachment of the drive unit, and where is this detachment feature shown in the drawings? The same questions apply to the description in pg. 7, lines 4-10. Frictional engagement is a form of "positive" drive. What makes it "non-positive"?

Pg. 7, lines 11-21, the description of how the bush is displaced is confusing. Lines 14-15 state that the pin wrench 25 is used to rotate the bush 13, yet it is not clear how this is accomplished. Where is the slot that the pin wrench fits through shown in the drawings other than Fig. 4? If the slot is the slotted upper protuberance (shown in Fig. 1), then it is not clear how that slot would facilitate rotation of the bush.

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Pg. 7, line 29 to pg. 8, line 14, the description of the comparison between the prior art and the state of the art is not clearly understood. What do the percentages represent? How are the parameters defined and by what standard, especially the cutting angle? What is the relevance of the data?

8. Claims 1-21 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are replete with vague and indefinite language and lack of antecedent basis for claimed feature(s). The following are some noted examples.

- i) In claim 1, line 2, the phrase "such as sheet metal" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention or not, and the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. In line 11, the phrase "a non-positive drive connection between said blade shafts" is vague and indefinite in that it is not clear what the phrase encompasses. What structural feature(s) is the phrase referring to, and how do the feature(s) facilitate a "non-positive" connection? In line 14, the phrase "acute angle" is vague and indefinite. Where is the "angle" referenced from? Is it parallel or perpendicular to the horizontal plane? In lines 15-16, what structural feature(s) is encompassed by the "means for rotatably supporting..."? In lines 17-18, the phrase "means for establishing and adjusting a cutting gap" is

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vague and indefinite in that it is not clear what the phrase encompasses. What structural feature(s) is the phrase referring to? In lines 19-20, the phrase "means for releasably coupling..." is vague and indefinite in that it is not clear what the phrase encompasses. What structural feature(s) is encompassed by the releasably coupling means, and where is it shown and positively referenced in the drawings? In lines 21-22, the "means for non-positively connecting..." is not clearly understood. What structural feature(s) facilitates a "non-positive" connection and are encompassed by the recited means? The same applies to claims 18 and 21.

- ii) Claim 6 is vague and indefinite in that it is not clear what is encompassed by the "means for displaceably mounting". What structural feature(s) is the phrase referring to? What is the difference between the displaceable mounting means and the "means for releasably coupling" in claim 1?
- iii) In claims 8-10, 12, 14, 15, and 17, the phrase "the range" lacks clear antecedent basis.
- iv) Claim 9 is vague and indefinite. First, it is not clear what is being claimed. Claim 8 sets forth a narrow range for the gap, and the present claim sets forth a broader range. This renders the claim unclear since the resulting claim does not set forth the metes and bounds of the invention. Second, there is no support in the specification for the claimed width range.

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- v) Claim 10 is not clearly understood. What is the "cutting angle" referring to? How is the "angle" defined? Where is the support in the specification for the claimed range? The same applies to claims 11 and 16 with respect to the diameter range, claims 12 and 17 with respect to the acute angle range, claim 14 with respect to the overlap range, and claim 15.
- vi) Claim 13 is vague and indefinite in that it is not clear what the claim encompasses. What is the difference between the features cited herein and the "means for releasably coupling" in claim 1?
- vii) In claim 18, line 6, the phrase "the material" lacks clear antecedent basis.
- viii) Claim 20 is vague and indefinite. Same direction of what?
- ix) Claim 21 is vague and indefinite in that it is not clear what the claim encompasses. What is the "supporting unit" referring to? Where is it shown in the drawings - i. e. by what reference number? In addition, what is encompassed by the "means for transmitting drive motion"? What structural feature(s) perform this function?

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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10. As best understood, claims 1-6, 14-15, and 21 are rejected under 35 U.S.C. § 102(b) as being anticipated by Gockel et al (French Patent 794,776).

Gockel et al teaches cutter units each comprising upper and lower circular blades A, B, upper and lower blade shafts C, D, a drive connection (not shown), a U-shaped frame E<sub>2</sub>, upper and lower legs (not designated by reference), a flat yoke (at E<sub>2</sub> in Fig. 4) intersecting a horizontal plane at the angle range as claimed, inherently a means for supporting the shafts, means C<sub>1</sub> for establishing and adjusting the cutting gap, inherently a means for releasably coupling, inherently a drive unit having a motor, inherently a means for connecting the blades to the drive unit, a toothed wheel L, a friction drive (see pg. 2, lines 10-22), and at least one guide rail H. See Figs. 1-4.

Regarding the adjustable cutting gap range, overlapping range, and the "cutting angle" range, Gockel et al's device includes the ranges as claimed.

### *Claim Rejections - 35 USC § 103*

11. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.



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12. As best understood, claims 7-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Gockel et al (French Patent 794,776) in view of Senftleben.

Gockel et al discloses the claimed invention except for an axially displaceable bush to support the upper shaft. However, Senftleben teaches an axially displaceable bush 7 for supporting an upper shaft 1 and to assist in adjusting the axial position of a circular blade (see Fig. 1) and thereby reduce wear on the surface of the shaft. See Fig. 1 and col. 1, lines 11-16 and column 2, lines 17-23. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the apparatus of Gockel et al with an axially displaceable bush as taught by Senftleben in order to facilitate reduced wear on the shaft.

Regarding claims 8-10, Gockel et al's device includes the cutter gap, "cutting angle", and acute angle range as claimed.

Regarding claim 11, it appears that Gockel et al's device includes the diameter range as claimed. However, if it is argued that Gockel et al lacks the diameter range, then it would have been obvious to the ordinary artisan at the time of the instant invention to provide the device of Gockel et al with the diameter range as claimed, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

13. As best understood, claims 16-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Gockel et al (French Patent 794,776).

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Gockel et al discloses the invention substantially as claimed. It appears that Gockel et al's device includes the blade shaft diameter range. However, if it is argued that Gockel et al lacks the diameter range, then it would have been obvious to the ordinary artisan at the time of the instant invention to provide the device of Gockel et al with the diameter range as claimed, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

Regarding claim 18, Gockel et al discloses the invention substantially as claimed except for plural guide rails. However, plural guide rails are old and well known in the art to facilitate positive support and guidance of cutter units. It would have been obvious to the ordinary artisan at the time of the instant invention to provide the device with plural guide rails, since plural guide rails are old and well known in the art to facilitate support and slidable guidance of cutter units and since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art.

Regarding claim 19, the phrase "capable of setting said gap..." has not been given patentable weight, since it has been held that the recitation that an element is "capable of" performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

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*Response to Amendment*

14. Applicant's arguments filed June 25, 1996 have been fully considered but they are not deemed to be persuasive.

In response to Applicant's argument that the references do not teach releasable coupling to the driving unit, the Examiner respectfully disagrees. First, the specification and the drawings are not clear as to how the driving unit is releasably coupled to the cutter units. The drawings only show a "black box" 30 "connected" to the drive shaft 16. The specification and the drawings do not show any means of decoupling (or coupling) the drive unit 30 to the cutter units to support Applicant's assertions. The only positive showing that eludes to "releasable coupling" is that the cutter units are slidably mounted on guide rails and a drive shaft and clamped into position by clamping means. However, the clamping means are not even shown, and absent further details, it is not clear how the units are "clamped" into the preselected positions to facilitate "releasable coupling". Second, assuming *arguendo* that the contended "releasable coupling" is adequately disclosed, Gockel et al's device inherently includes those features since, as shown in Figs. 1-3, each cutter unit is releasably mounted on the T-shaped rail and the drive shaft G, and therefore, each cutter unit is "releasably coupled" to a drive unit or drive means as encompassed by the drive shaft G and a driving mechanism not shown. In other words, Gockel et al's cutter units are made so that they can be taken off the rail and drive shaft G, and subsequently, the drive mechanism.

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In response to Applicant's argument that the references do not teach a "non-positive connection between the upper and lower blades and between the motor and the blades", see the 35 U.S.C. § 112, first paragraph, rejections *supra*. In addition, Gockel et al's device teaches frictional engagement between the blades. See pg. 2, lines 10-22.

In response to Applicant's argument that Senftleben do not teach the kind of adjustment discussed in the specification, applicant misinterprets the principle that claims are interpreted in the light of the specification. The features that facilitate adjustment as discussed in the specification were not claimed explicitly. Nor were the words that are used in the claims defined in the specification to require these limitations.

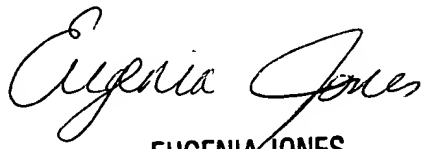
***Conclusion***

15. Cavagna, Mayer, and Suzuki et al are cited as pertinent art.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Goodman whose telephone number is (703) 308-0501.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1148.

CG   
December 9, 1996

  
EUGENIA JONES  
PRIMARY EXAMINER  
GROUP 3200